IN THE CLAIMS

Claims 1 – 13 (Canceled)

14. (Original) A chemically modified mutant enzyme with one or more amino acid residues from said enzyme being replaced by cysteine residues, wherein the one or more amino acids residues replaced with a cysteine are in a subsite of the enzyme, the subsite being selected from group consisting of S1, S1' and S2, and wherein at least some of cysteine residues are modified by replacing thiol hydrogen in the cysteine group with a thiol side chain, wherein the thiol side chain is selected from the group consisting of $-SCH_2(p\text{-}CH_3\text{-}C_6H_4)$, $SCH_2(p\text{-}OCH_3\text{-}C_6H_4)$, $SCH_2(p\text{-}CF_3\text{-}C_6H_4)$, and $SCH_2(2,4\text{-}diNO_2\text{-}C_6H_3)$.

15. (Original) A chemically modified mutant enzyme according to claim 14, wherein the enzyme is a protease.

16. (Original) A chemically modified mutant enzyme according to claim 15, wherein the protease is *Bacillus lentus* subtilisn,

17. (Original) A chemically modified mutant enzyme according to claim 14, wherein the amino acid is replaced with a cysteine is an amino acid selected from the group consisting of asparagines, leucine, and serine.

20. (Original) A chemically modified mutant enzyme according to claim 14, wherein the thiol side chain is $SCH_2(p\text{-}CH_3\text{-}C_6H_4)$.

21. (Original) A chemically modified mutant enzyme according to claim 14, wherein the thiol side chain is $SCH_2(p\text{-}OCH_3\text{-}C_6H_4)$.

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22. (Original) A chemically modified mutant enzyme according to claim 14, wherein the thiol side chain is $SCH_2(p\text{-}CF_3\text{-}C_6H_4)$.

23. (Original) A chemically modified mutant enzyme according to claim 14, wherein the thiol side chain is $SCH_2(p\text{-}CH_3\text{-}C_6H_4)$.

Claims 24 –33 (Canceled)

34. (Original) A detergent additive comprising the chemically modified mutant enzyme of claim 14.

35. (Original) A feed additive comprising the chemically modified mutant enzyme of claim 14.

Claim 36 (Canceled)

37. (NEW) The chemically modified mutant enzyme according to claim 16, wherein the chemical modification corresponds to amino acid residues N62, L217 or S166.

38. (NEW) A chemically modified mutant enzyme according to claim 15, wherein the protease is *Bacillus amyloliquifaciens* subtilisn.

39. (NEW) The chemically modified mutant enzyme according to claim 38, wherein the chemical modification corresponds to amino acid residues N62, L217 or S166.

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